WHAT IS CLAIMED IS

1. A method of simulating relative motion of objects in computer animation comprising the steps of:

providing a motion of a kinematic object, where the kinematic object is an element of a computer animation display;

providing at least one dynamic object associated with said kinematic object, where said at least one dynamic object is another element of the computer animation display and where motions of said at least one dynamic object are based on the motion of the kinematic object;

selectively manipulating the motions of said at least one dynamic object to simulate physical motion; and

displaying the elements of the computer animation display, including associated motions of said elements.

2. A method of simulating relative motion of objects according to claim 1 wherein said step of selectively manipulating comprises compensating for unreasonable motions of said at least one dynamic object when the kinematic object undergoes exaggerated motion.

3. A method of simulating relative motion of objects according to claim 2 wherein said exaggerated motion comprises accelerations that are unrealistic for humans.

4. A method of simulating relative motion of objects according to claim 2 wherein said step of selectively manipulating comprises compensating for the

unreasonable motions of said at least one dynamic object when the kinematic object undergoes accelerated motions above a predetermined limit.

5. A method of simulating relative motion of objects according to claim 1 wherein said kinematic object is an animated character and said at least one dynamic object is coupled to the animated character.

6. A method of simulating relative motion of objects according to claim 5 wherein said at least one dynamic object is a representation of hair attached to the animated character.

7. A method of simulating relative motion of objects according to claim 5 wherein said at least one dynamic object is a representation of clothing attached to the animated character.

8. A method of simulating relative motion of objects according to claim 1 wherein said at least one dynamic object comprises a first set of dynamic objects and a second set of dynamic objects and said step of selectively manipulating the motions of said at least one dynamic object comprises selectively manipulating motions of said first set of dynamic objects with respect to a first reference point on said kinematic object and selectively manipulating motions of said second set of dynamic objects with respect to a second reference point on said kinematic object.

9. A method of simulating relative motion of objects according to claim 1 wherein said at least one dynamic object comprises a plurality of dynamic objects

coupled to a plurality of reference points on said kinematic object and wherein said step of selectively manipulating the motions of said at least one dynamic object comprises manipulating the motions of each of said plurality of dynamic objects with respect to said plurality of reference points coupled thereto.

10. A method of simulating relative motion of objects according to claim 9 wherein said kinematic object is an animated character and said plurality of dynamic objects are coupled to the animated character and said plurality of reference points are different points on the animated character.

11. A method of simulating relative motion of objects according to claim 9 wherein said step of selectively manipulating comprises compensating for unreasonable motions of said plurality of dynamic objects when the kinematic object undergoes exaggerated motion.